

KIC 007116217

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
007116217-01	OBS	No	0.566754	131.867219	31.3	4.437	9.9	7.9	0.86	5639	0.51	3829.76

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007116217-01	OBS	FP	0.00	1	0	0	1	LPP_DV—EPHEM_MATCH

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

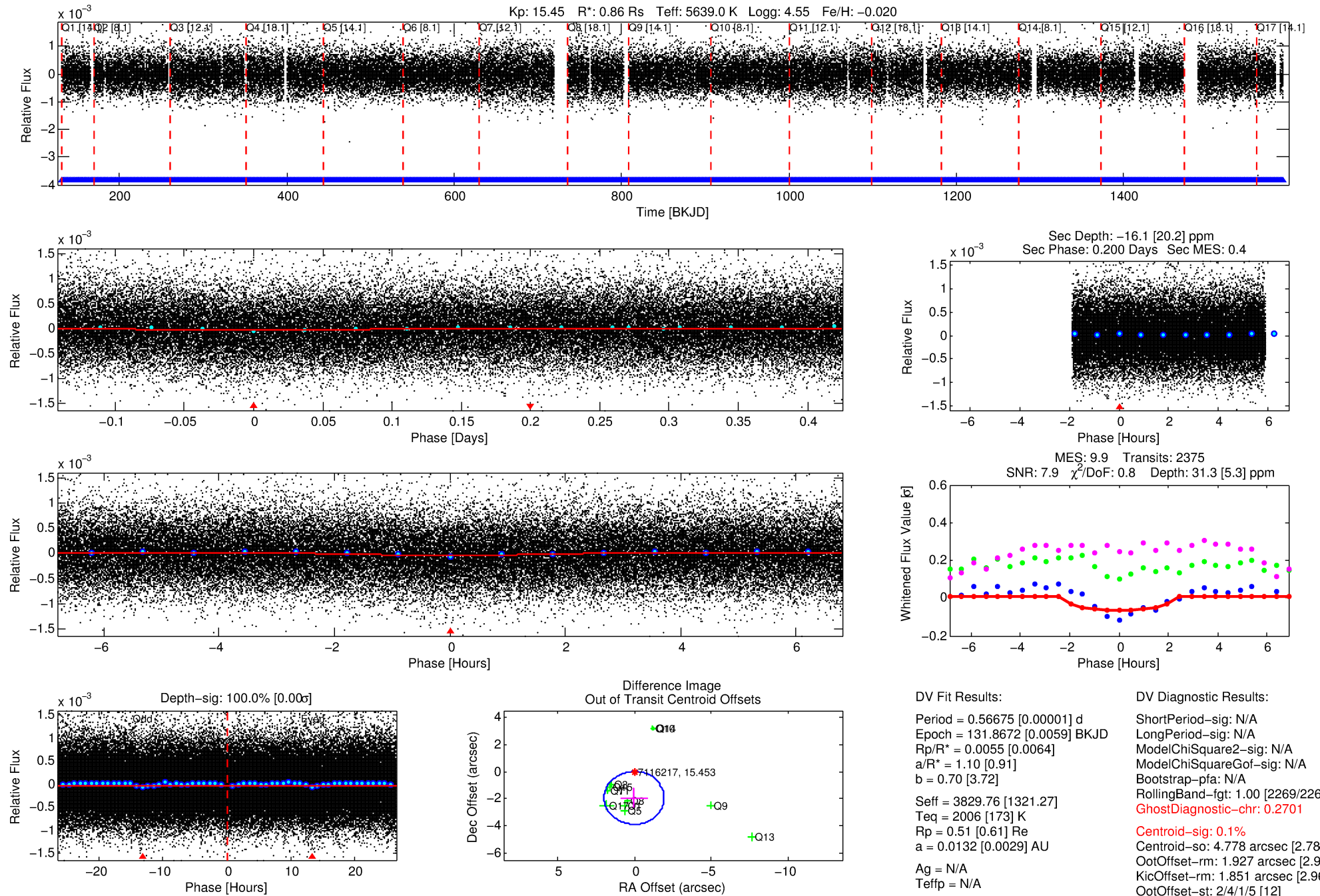
Ephemeris Match Information For 007116217-01

TCE (1)	KIC	Parent (2)	Parent KIC	$P_1:P_2$	Dist ($''$)	Δ Row	Δ Col	m_2	m_1	D_2/D_1	Mechanism	Flag	σ_P	σ_T
007116217-01	7116217	RR-Lyr-pri	7198959	1:1	539.5	87	-105	7.86	15.45	20106.00	Direct-PRF	0	1.28	21.73

Notes: $P_1:P_2$ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

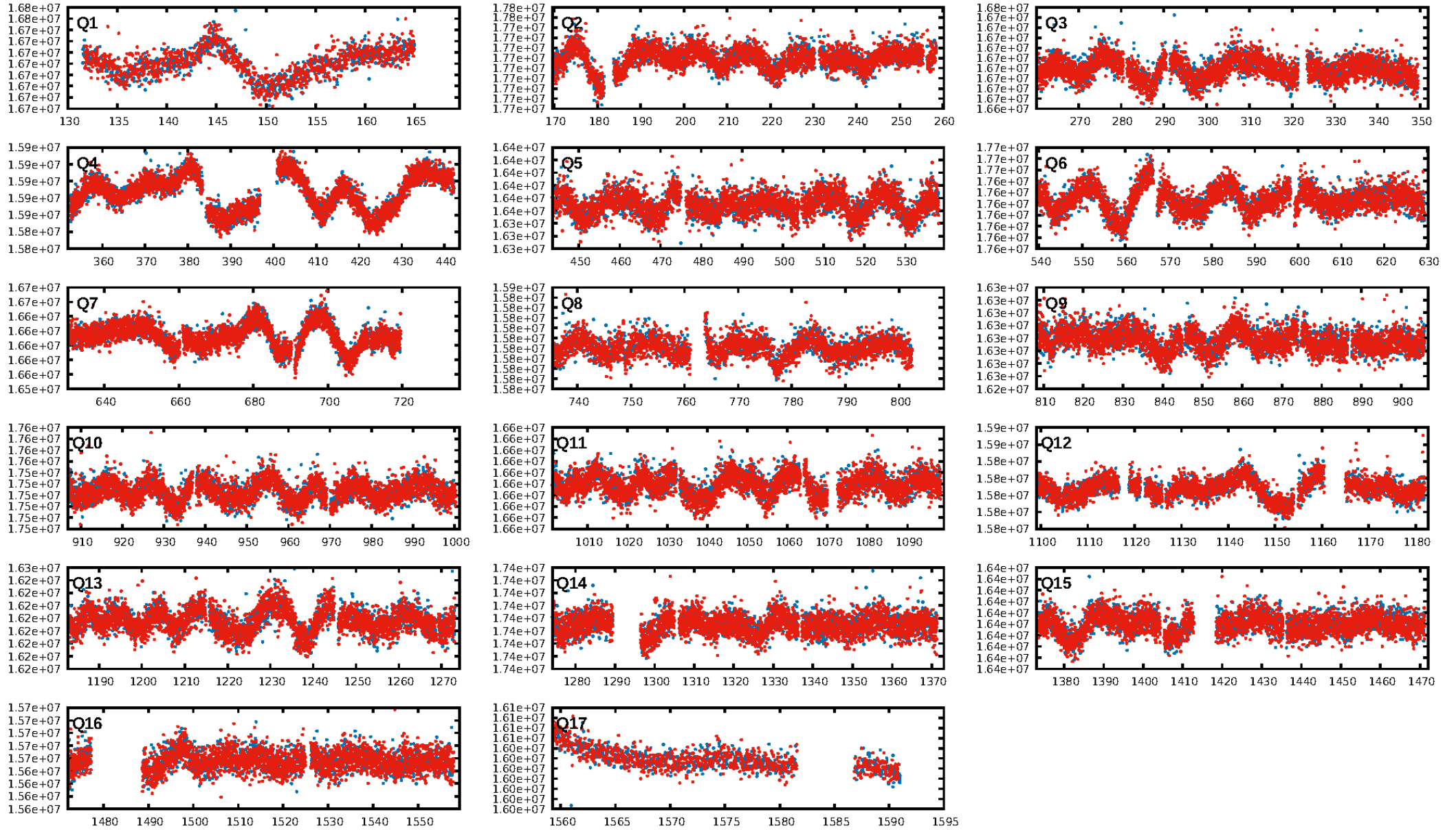
KIC: 7116217 Candidate: 1 of 1 Period: 0.567 d



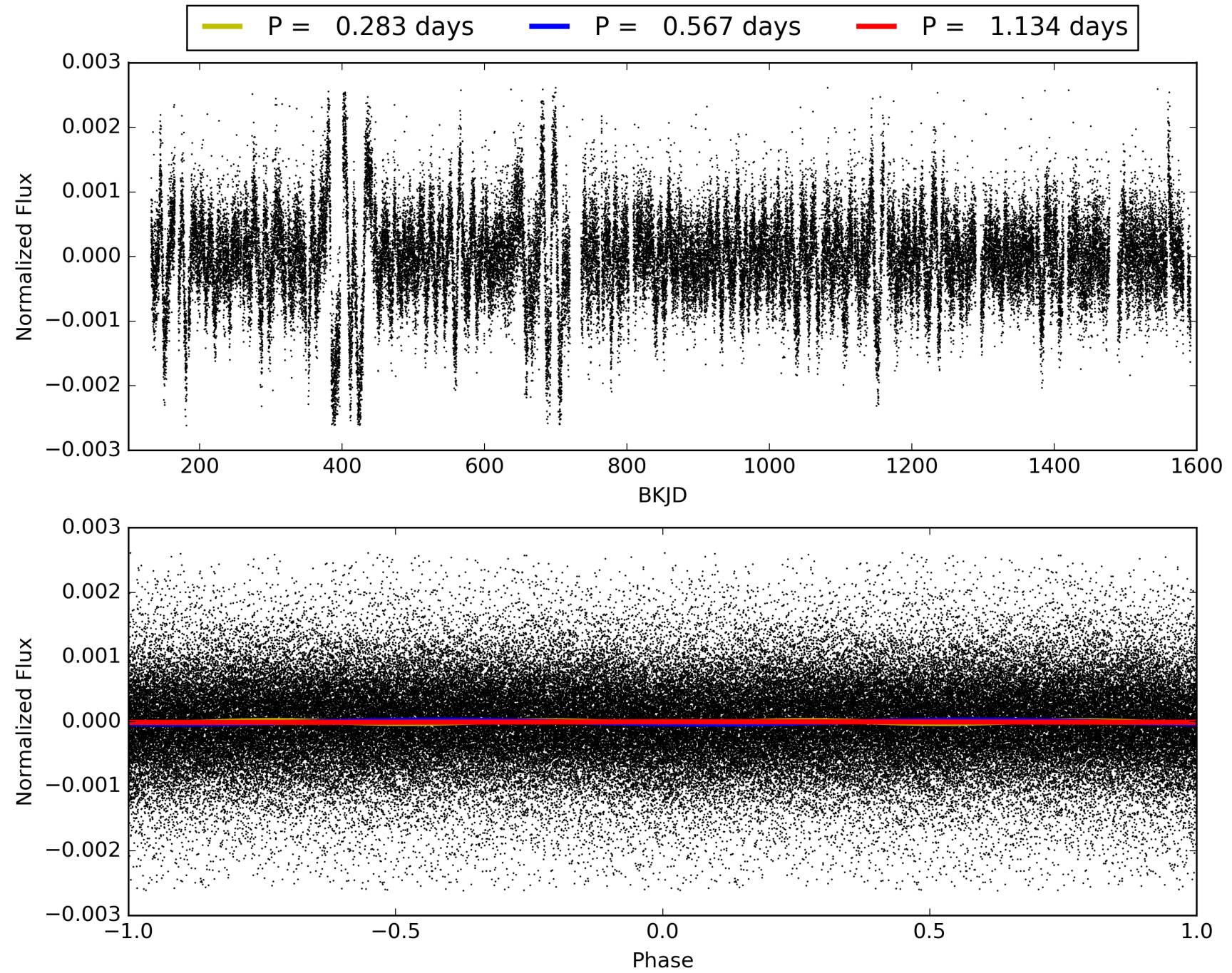
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 09:31:51 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 007116217-01, PDC Light Curves

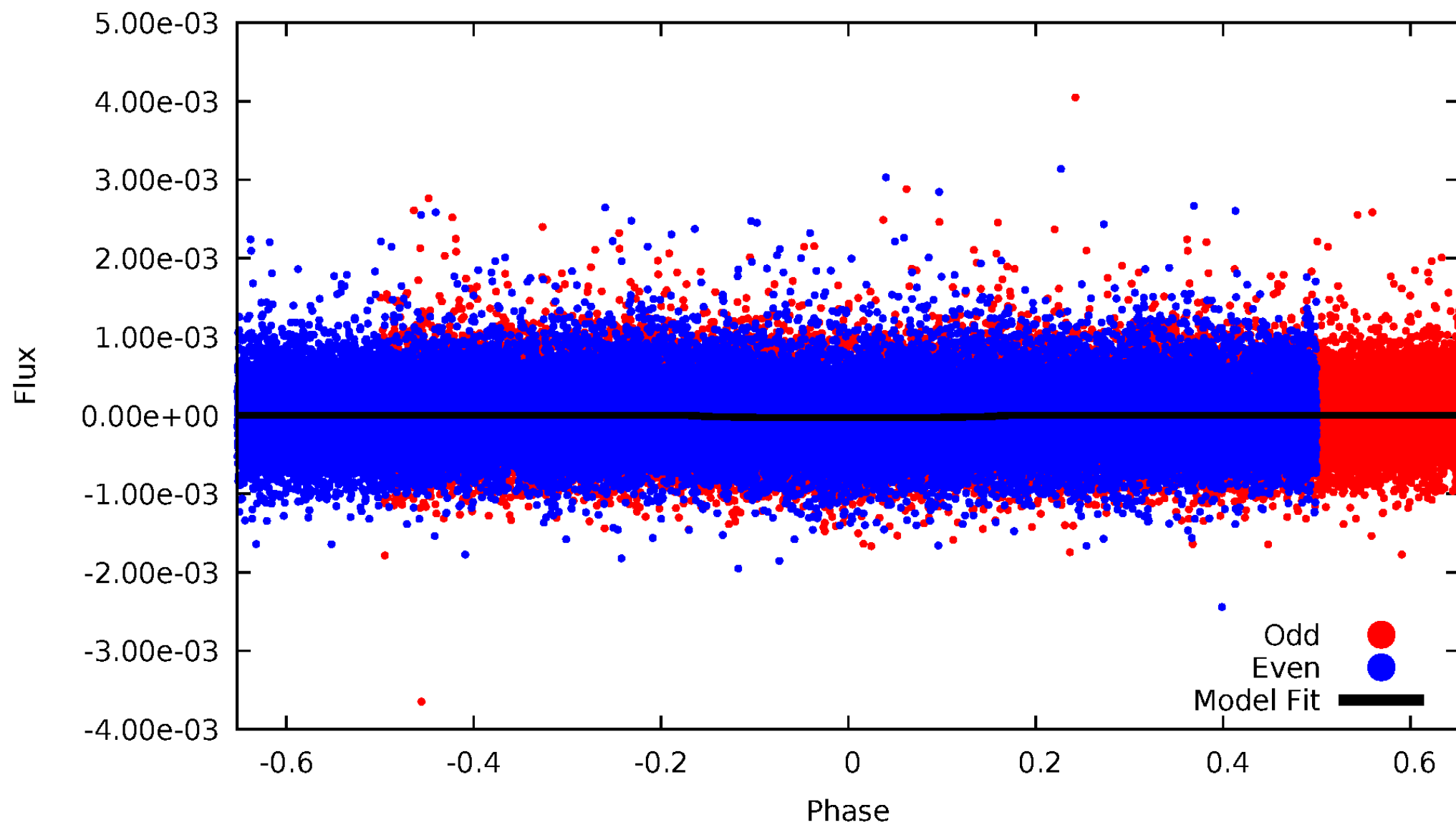


TCE 007116217-01



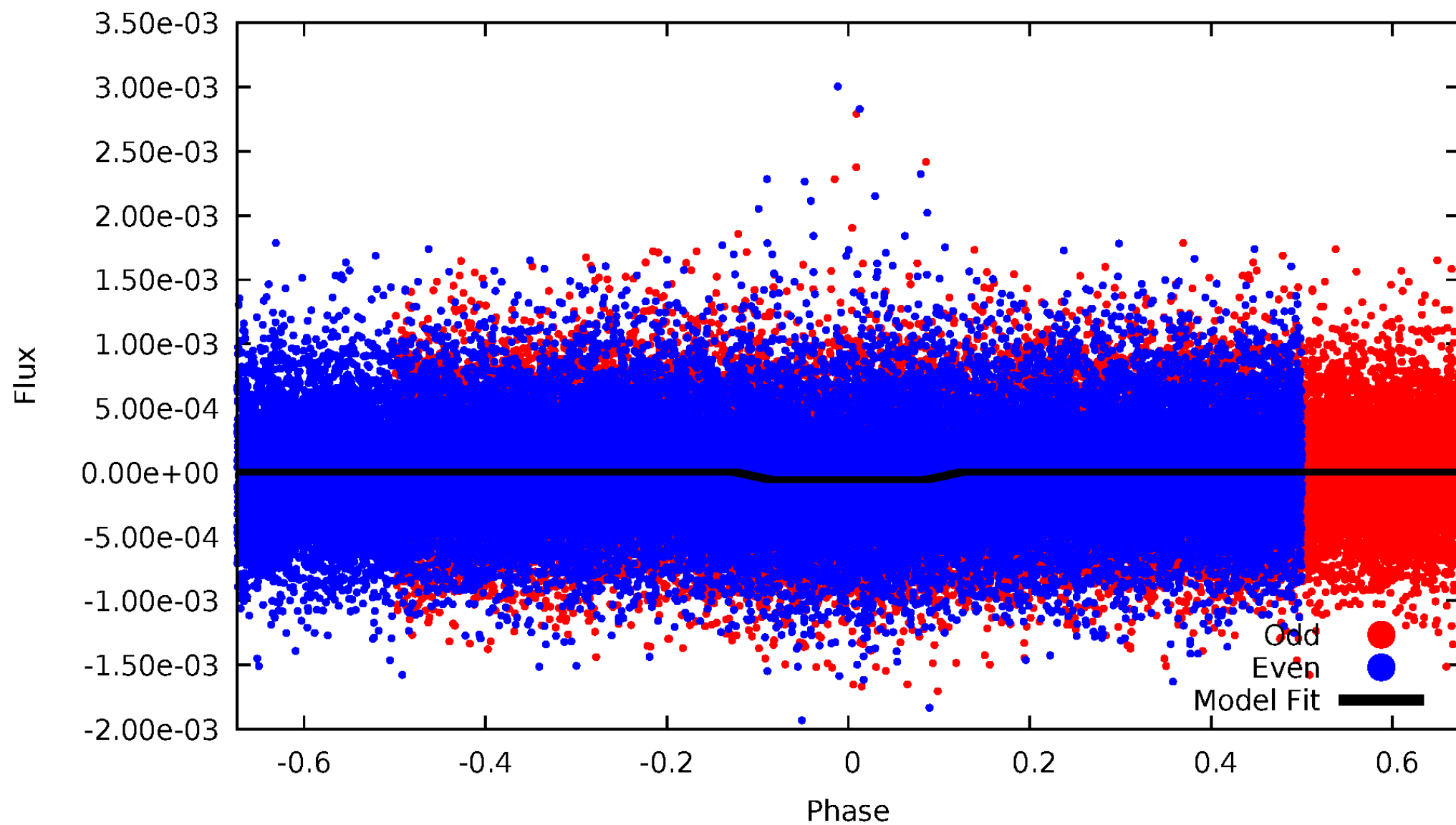
DV Odd/Even

TCE 007116217-01



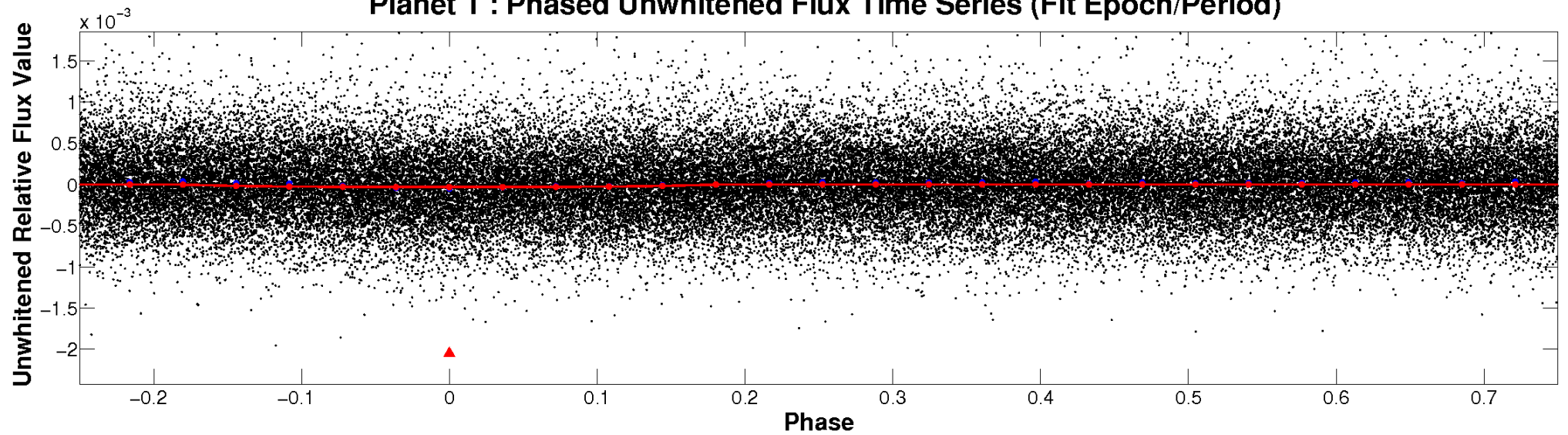
ALT Odd/Even

TCE 007116217-01

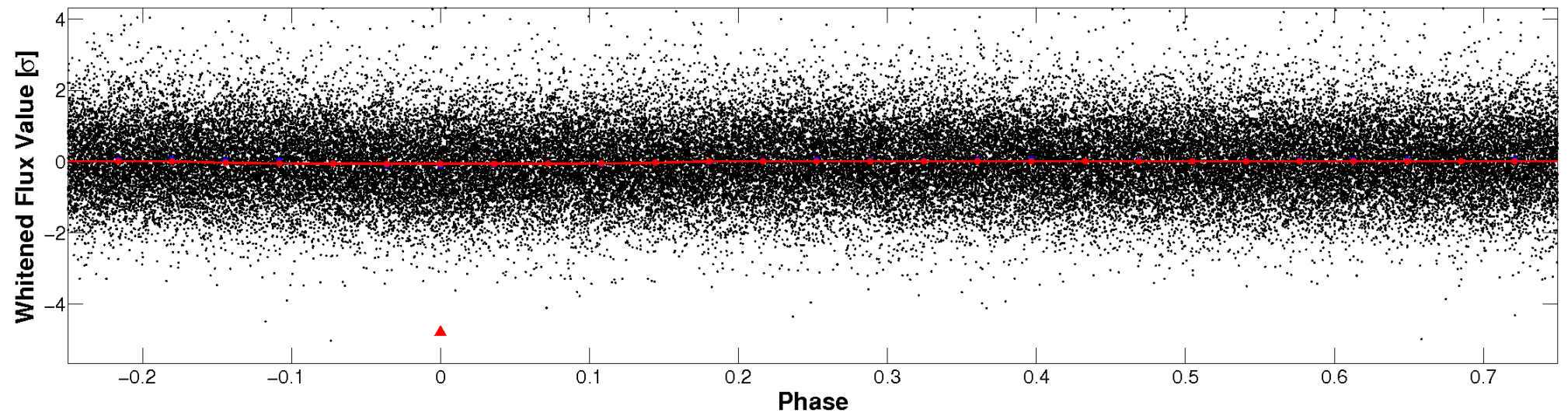


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

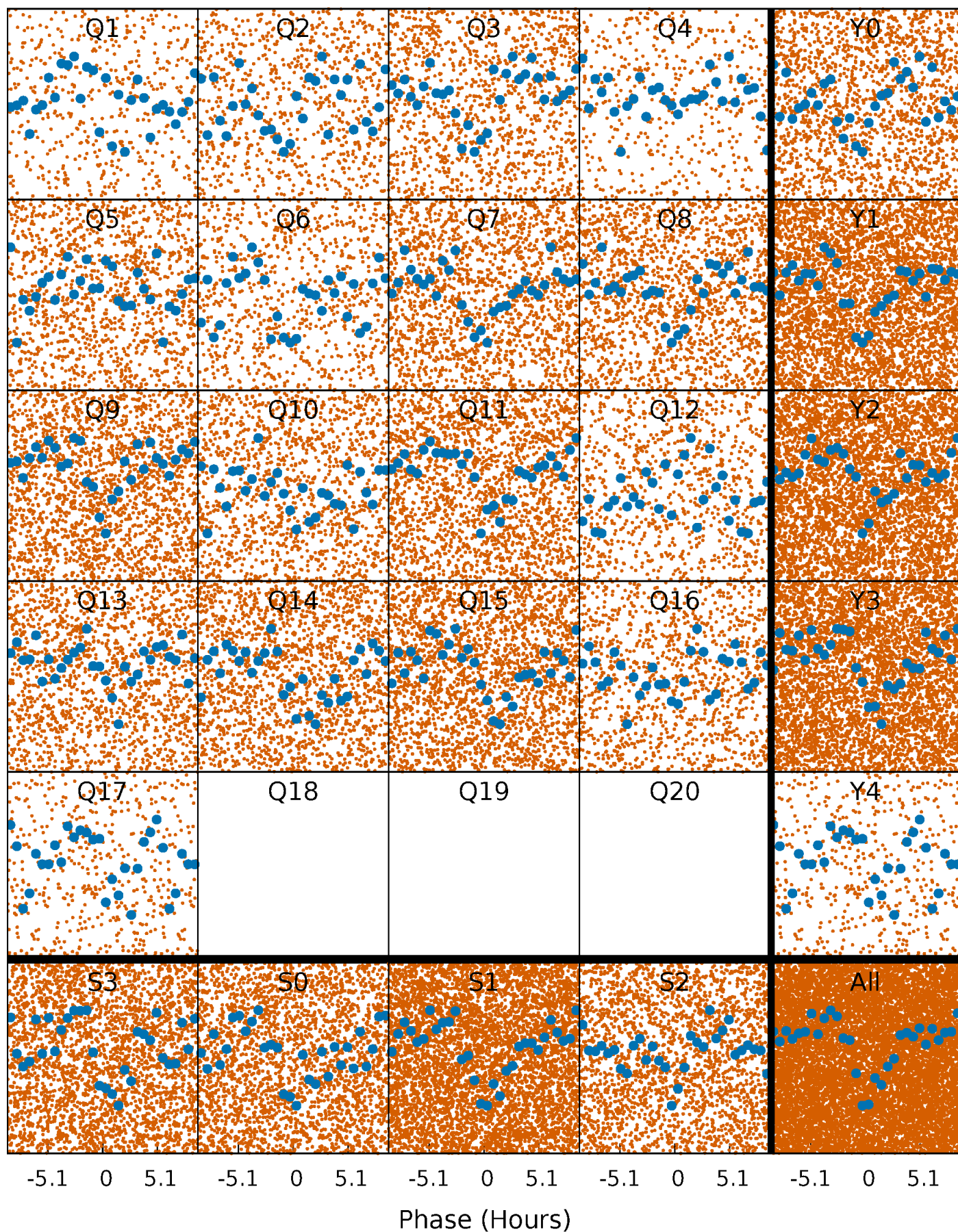


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



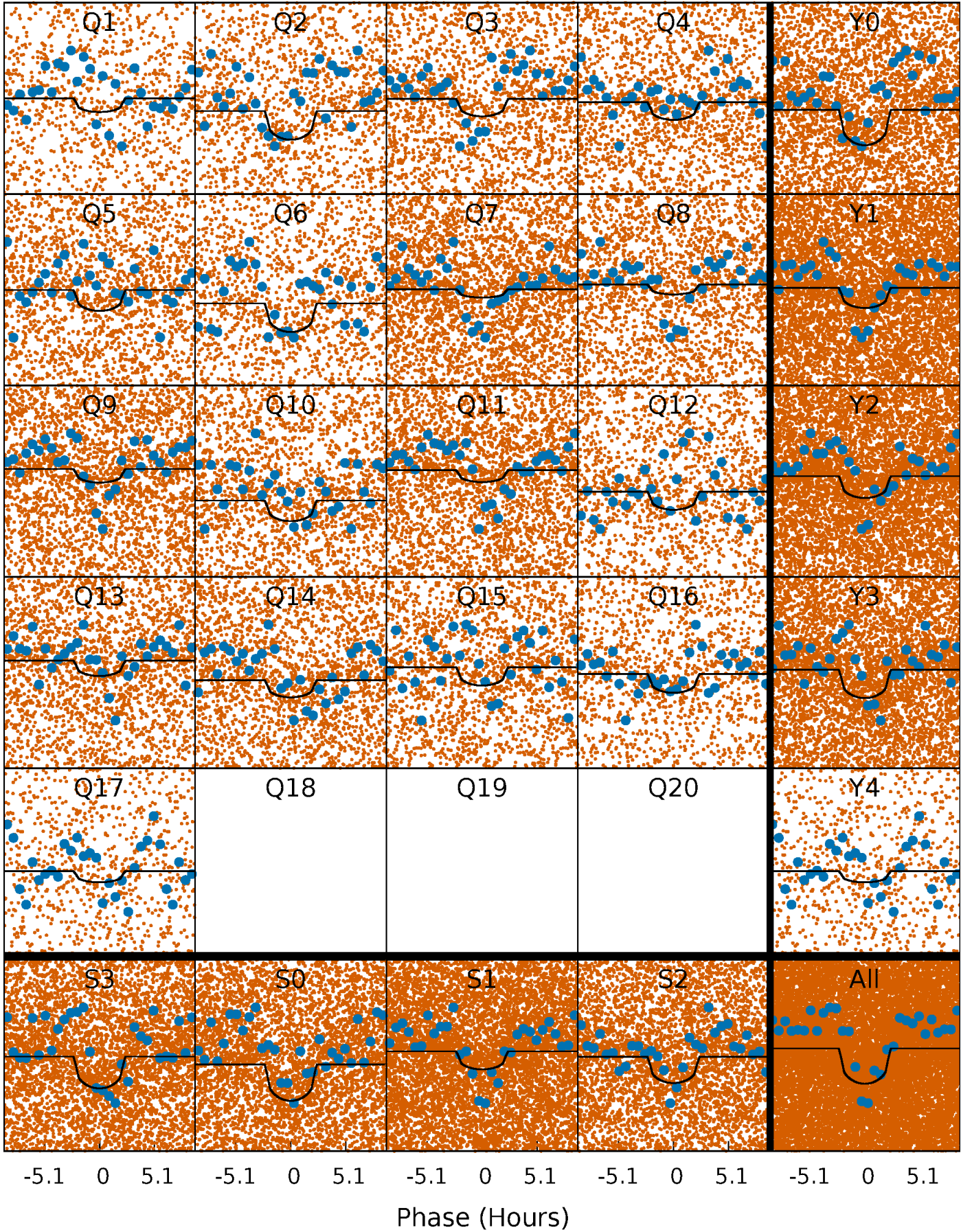
PDC Quarter-Phased Transit Curves

TCE 007116217-01 P= 0.566754 Days $T_0=131.867219$ (BKJD)



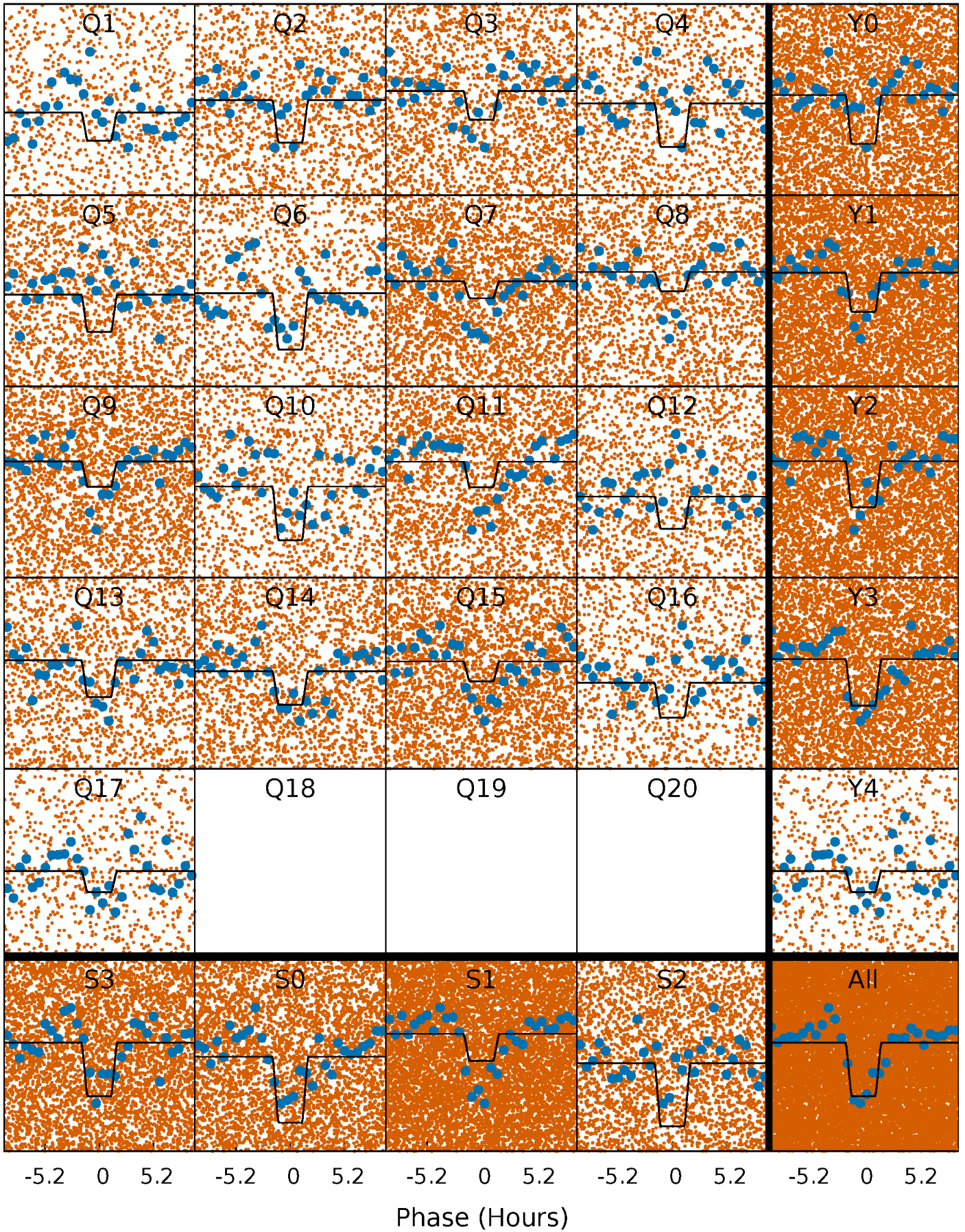
DV Quarter-Phased Transit Curves

TCE 007116217-01 P= 0.566754 Days $T_0=131.867219$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

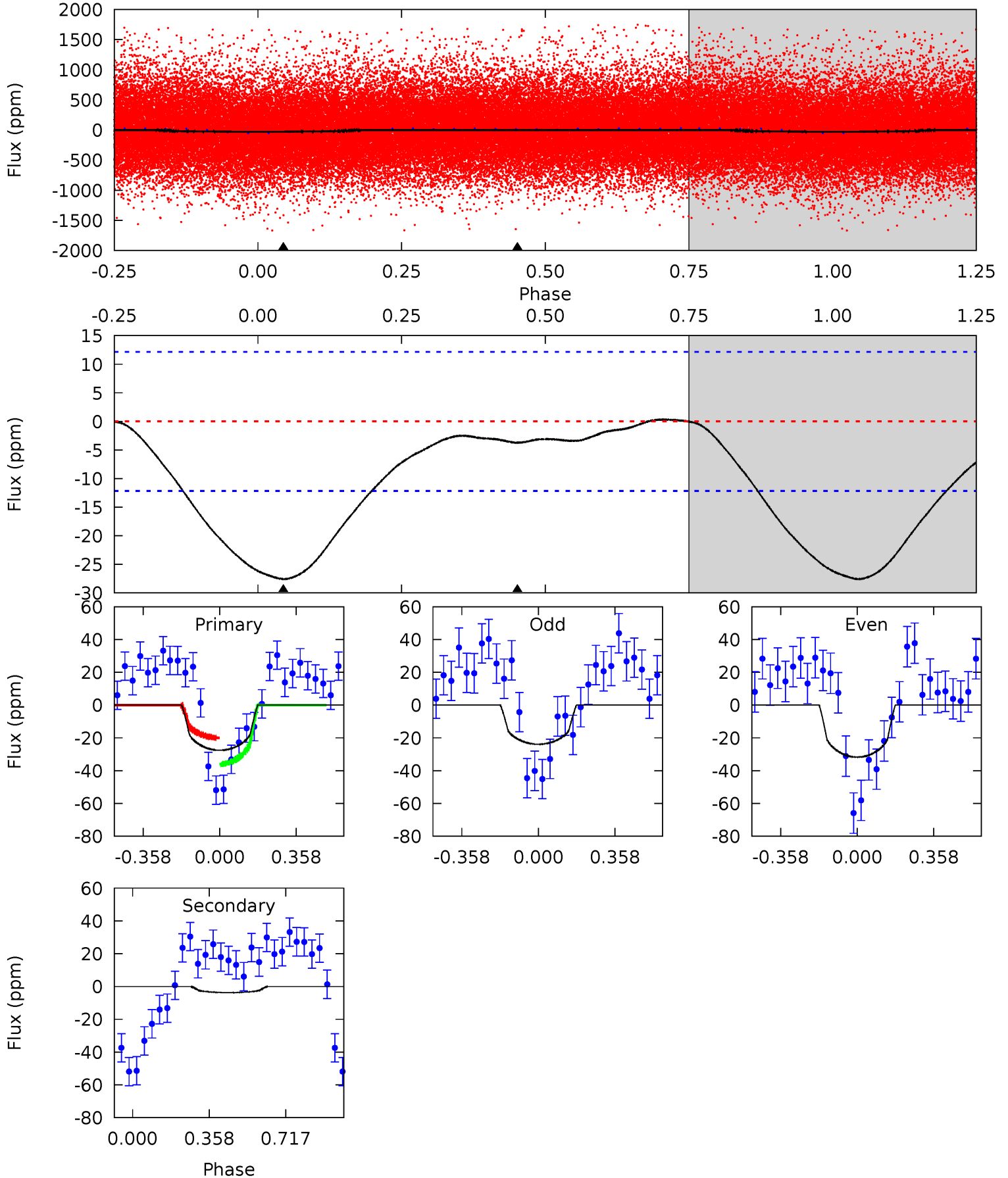
TCE 007116217-01 P= 0.566782 Days $T_0=131.846189$ (BKJD)



DV Model-Shift Uniqueness Test

007116217-01, P = 0.566754 Days, E = 131.300465 Days

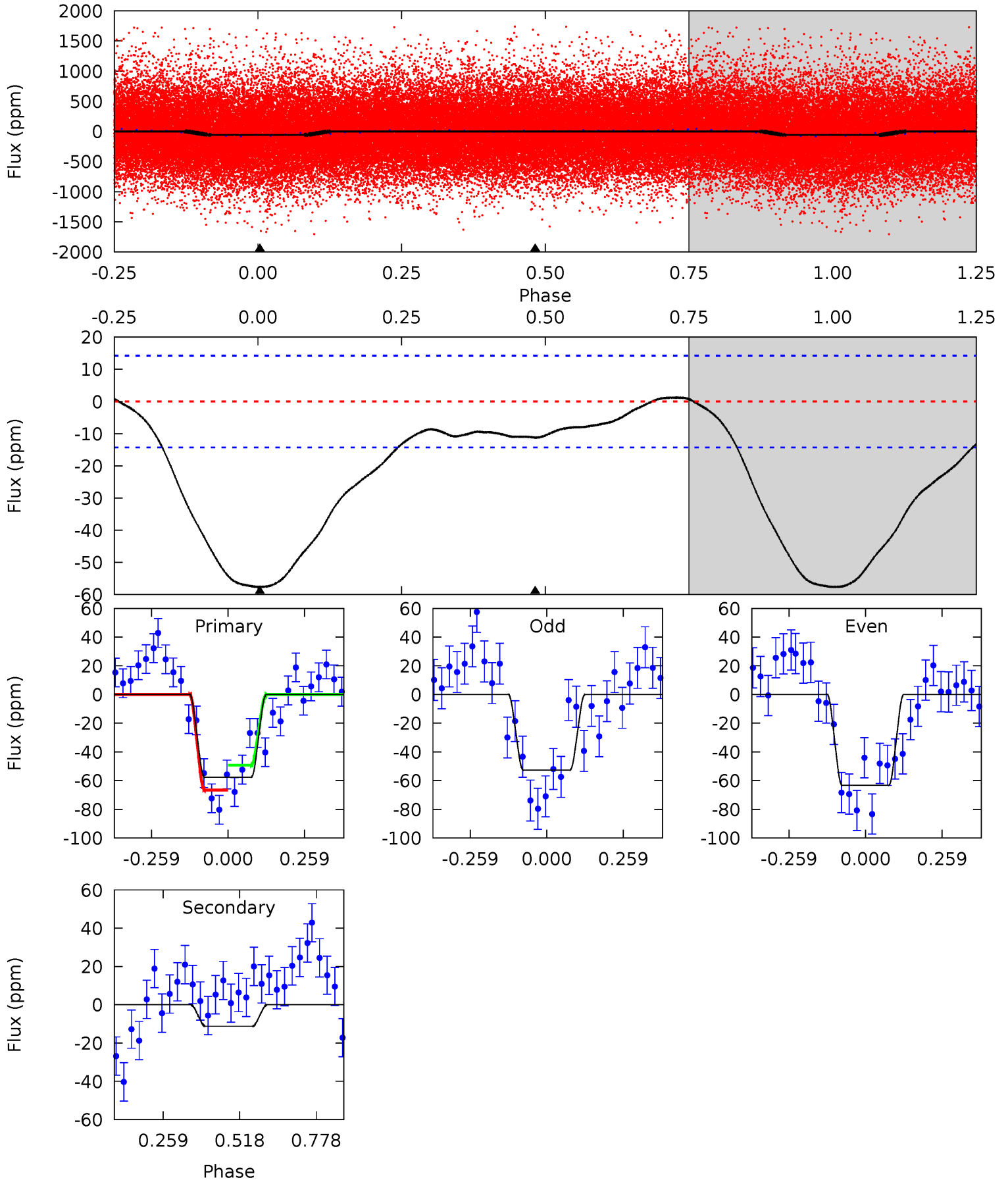
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.73	1.32	0	0	4.29	0.92	0.33	9.73	9.73	1.32	1.32	1.39	0.84	0.01	2.84



Alt Model-Shift Uniqueness Test

007116217-01, P = 0.566782 Days, E = 131.279407 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.6	3.44	0	0	4.36	1.13	2.11	17.6	17.6	3.44	3.44	1.62	0.98	0.02	2.62



Stellar Parameters For KIC 007116217

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5639^{+152}_{-169}	$4.551^{+0.032}_{-0.179}$	$-0.020^{+0.300}_{-0.300}$	$0.859^{+0.220}_{-0.073}$	$0.959^{+0.094}_{-0.115}$	$2.131^{+0.376}_{-1.020}$
	+3%/-3%	+1%/-4%	+1500%/-1500%	+26%/-8%	+10%/-12%	+18%/-48%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007116217-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-4 ± 3	$0.67^{+0.57}_{-0.42}$	2866^{+173}_{-125}	3078^{+1659}_{-5901}	$0.636^{+4.411}_{-0.530}$
Alt.	-11 ± 3	$0.88^{+0.56}_{-0.51}$	2857^{+174}_{-108}	3607^{+1493}_{-866}	$1.290^{+5.815}_{-0.832}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

DV Centroid Data

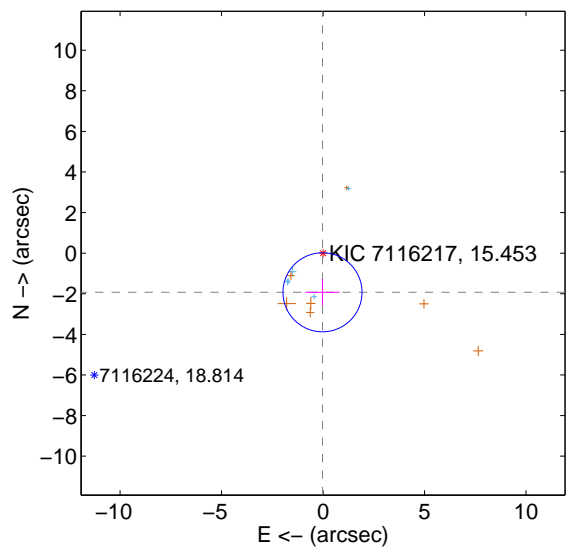
Supplemental centroid analysis for 007116217-01. Kepler magnitude: 15.45. Transit SNR 7.93

There are 5 quarters with good PRF difference image offsets

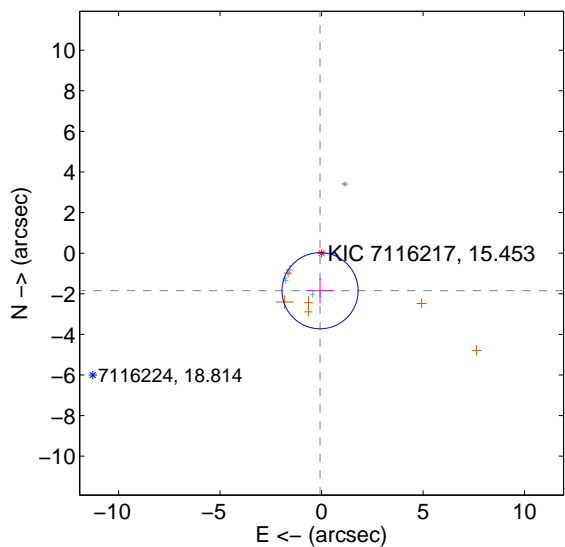
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.927 ± 0.649	2.97	0.027 ± 0.837	-1.927 ± 0.652
PRF-fit source offset from KIC position	1.851 ± 0.625	2.96	0.075 ± 0.706	-1.850 ± 0.628
photometric centroid source offset	4.78 ± 1.72	2.78	-4.76 ± 1.72	0.44 ± 1.65

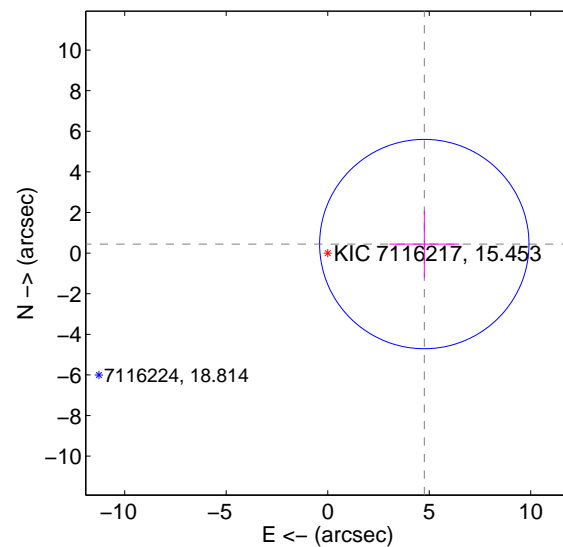
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

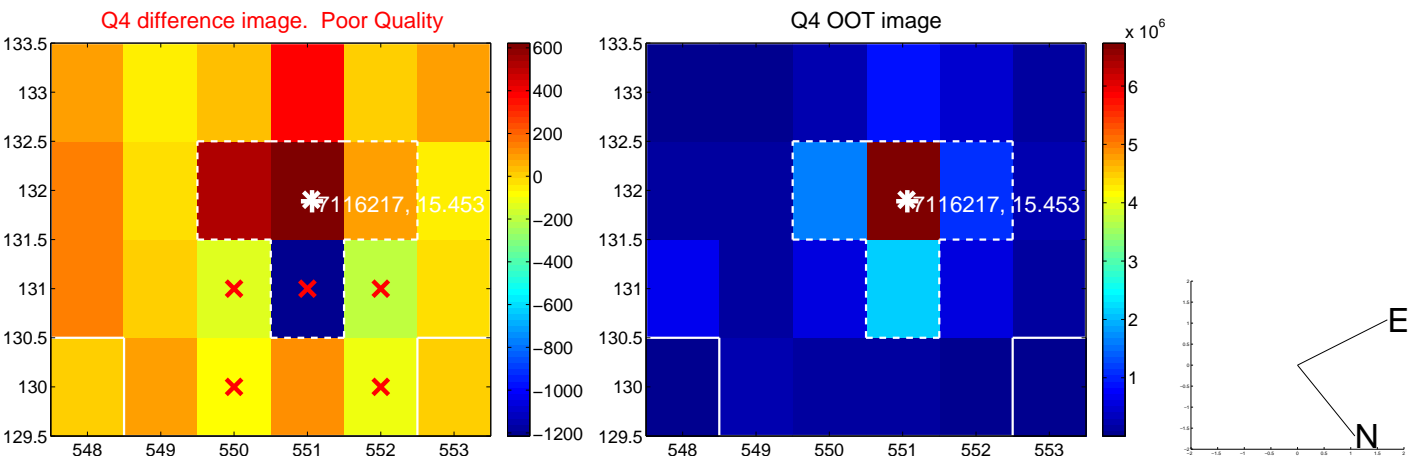
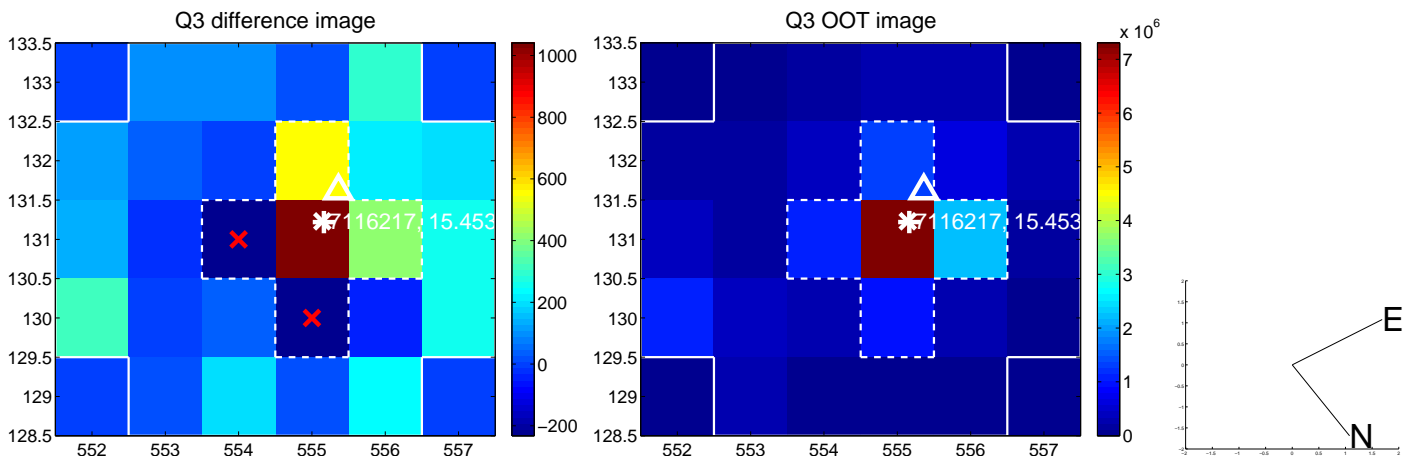
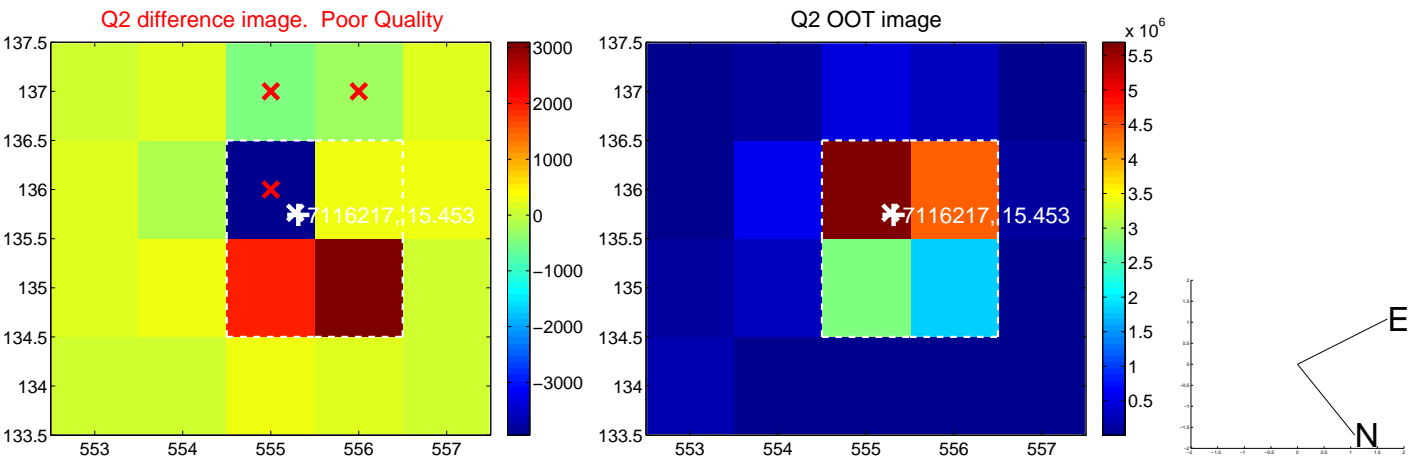
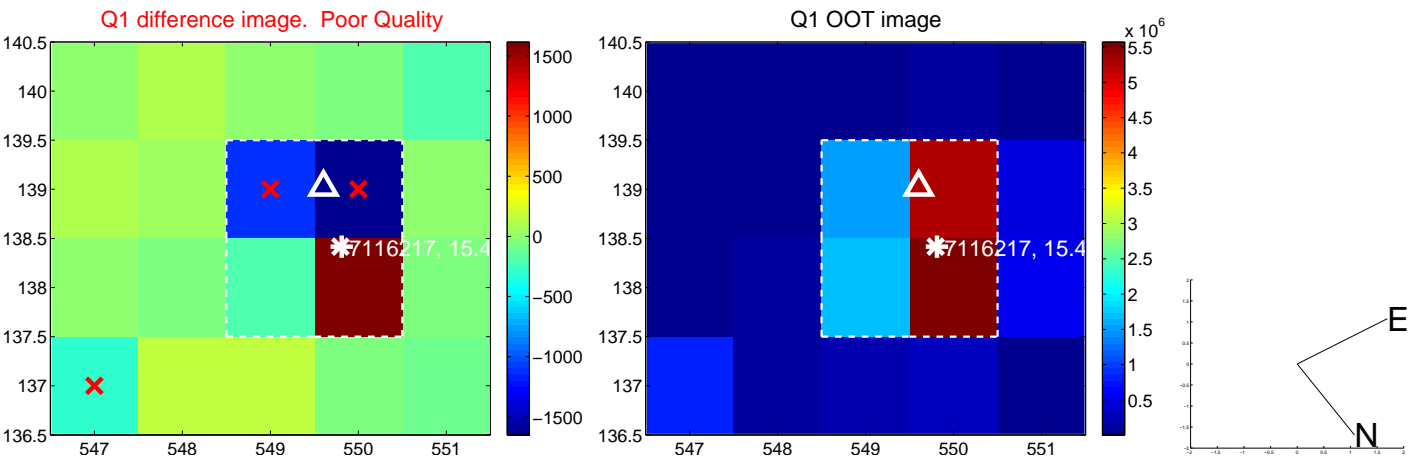


offset from photometric centroids

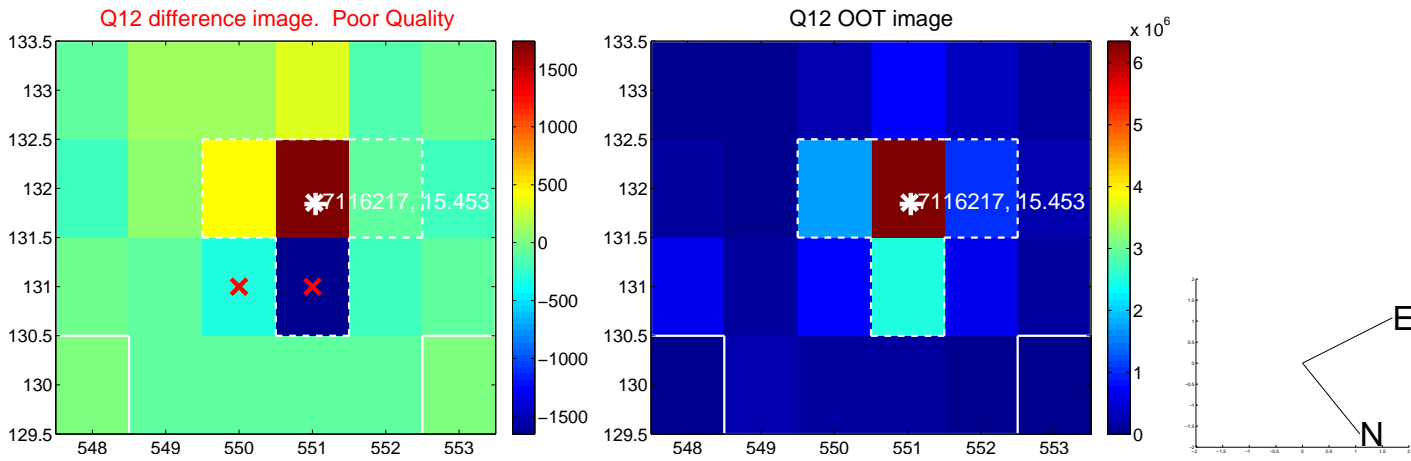
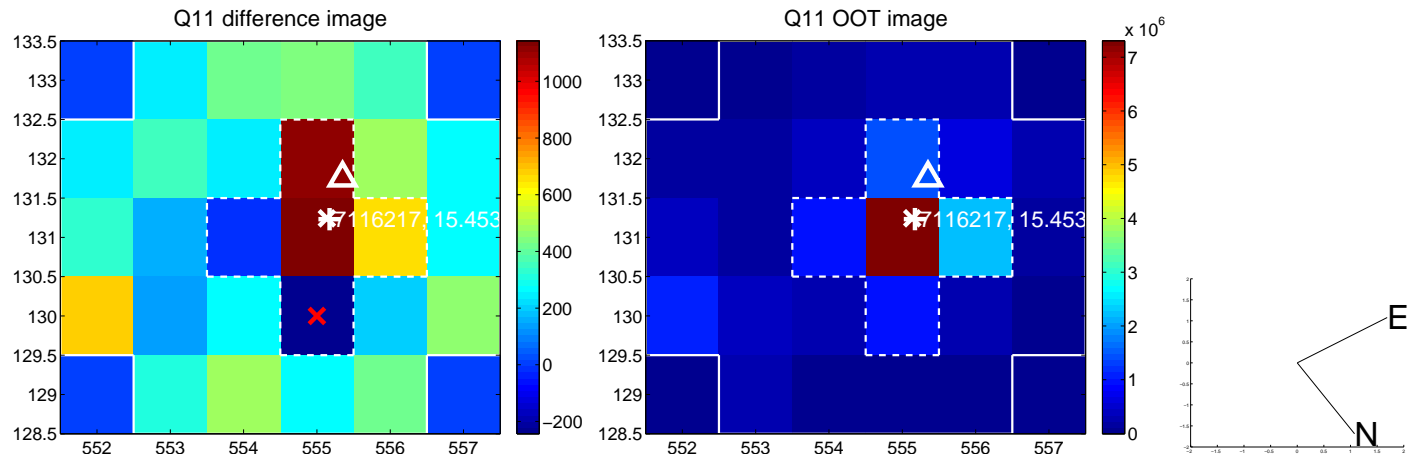
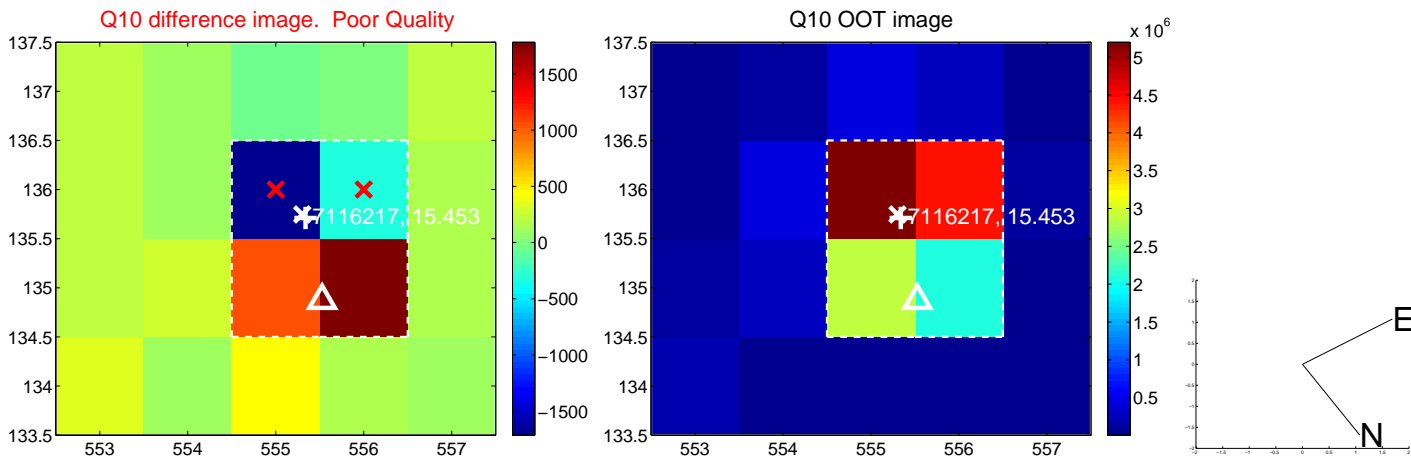
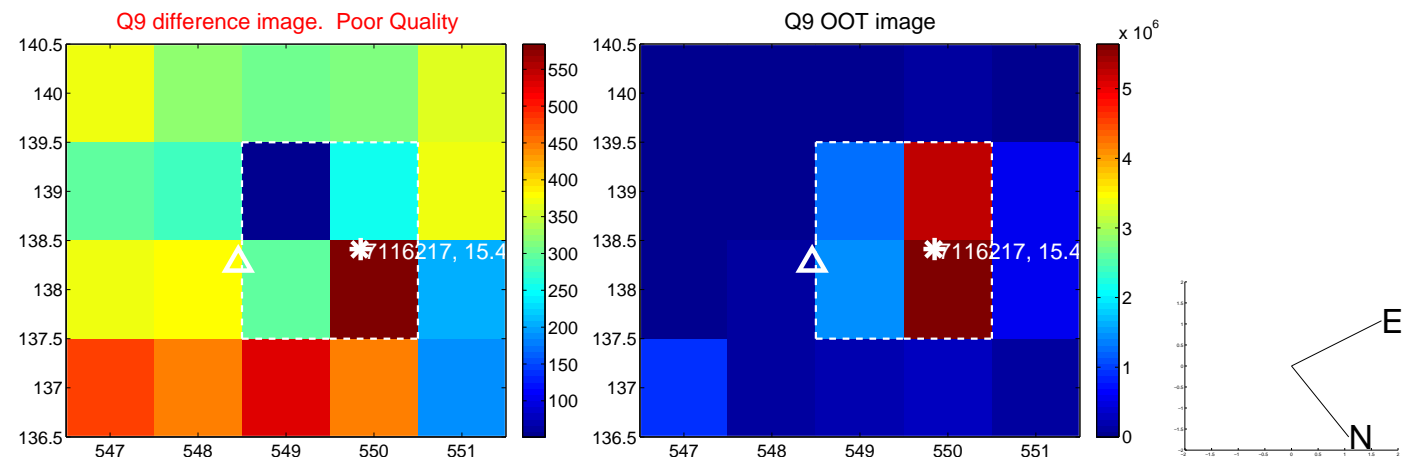


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

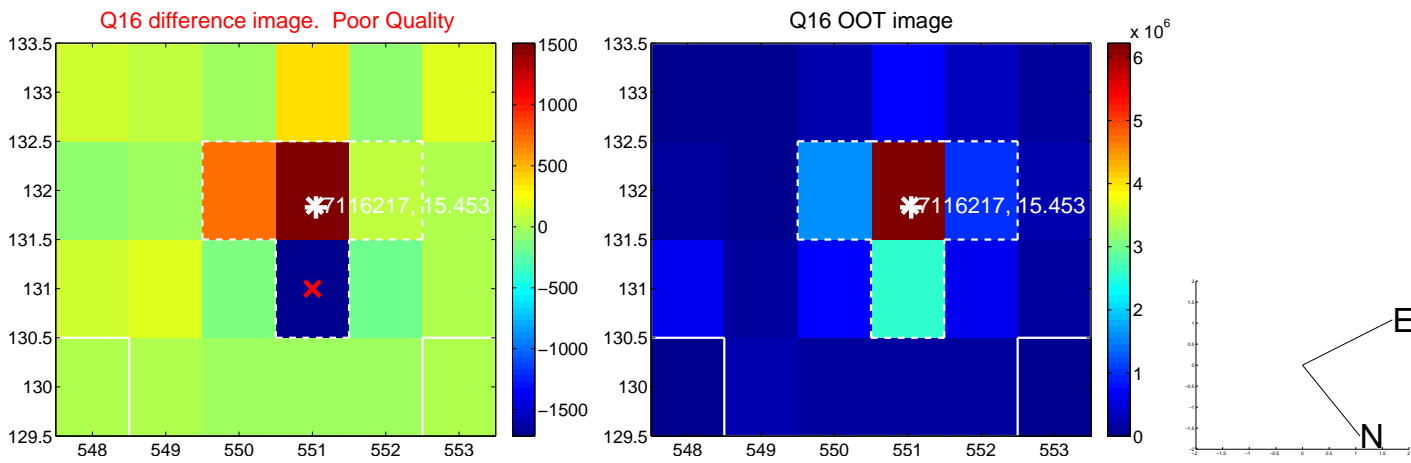
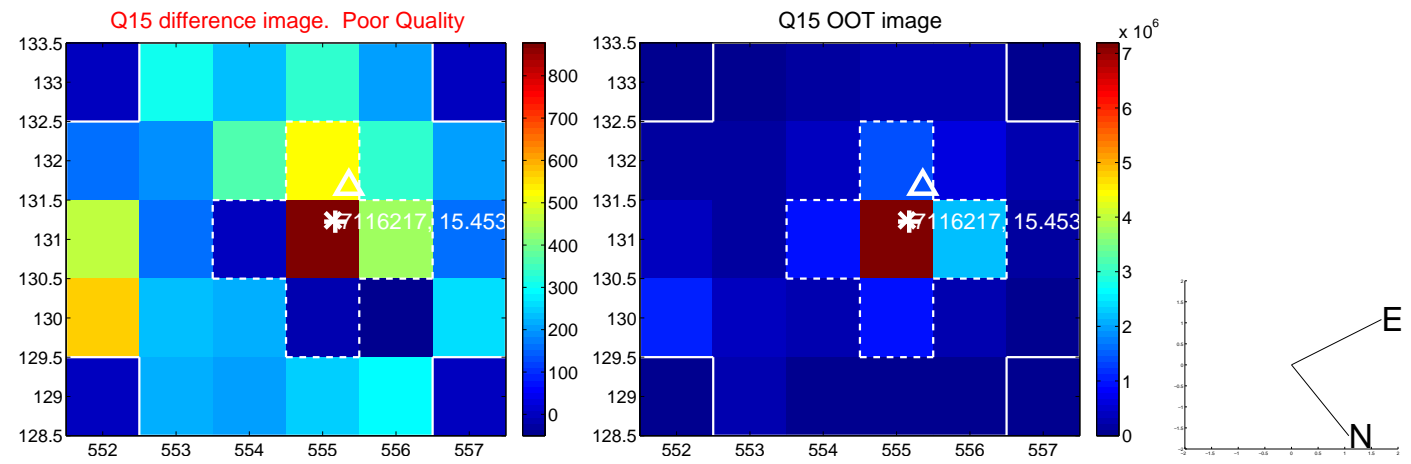
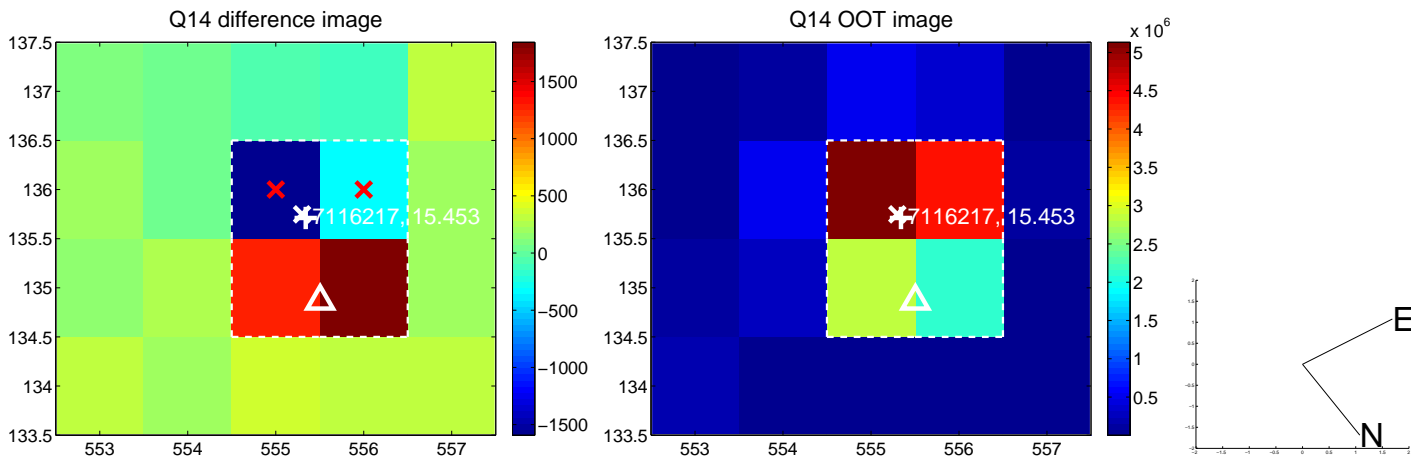
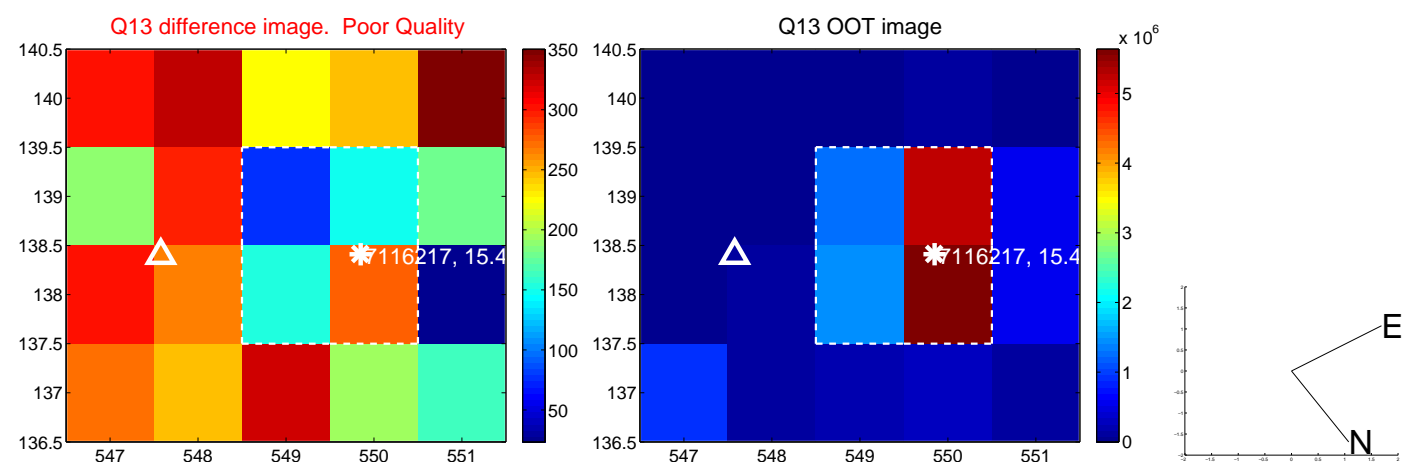
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



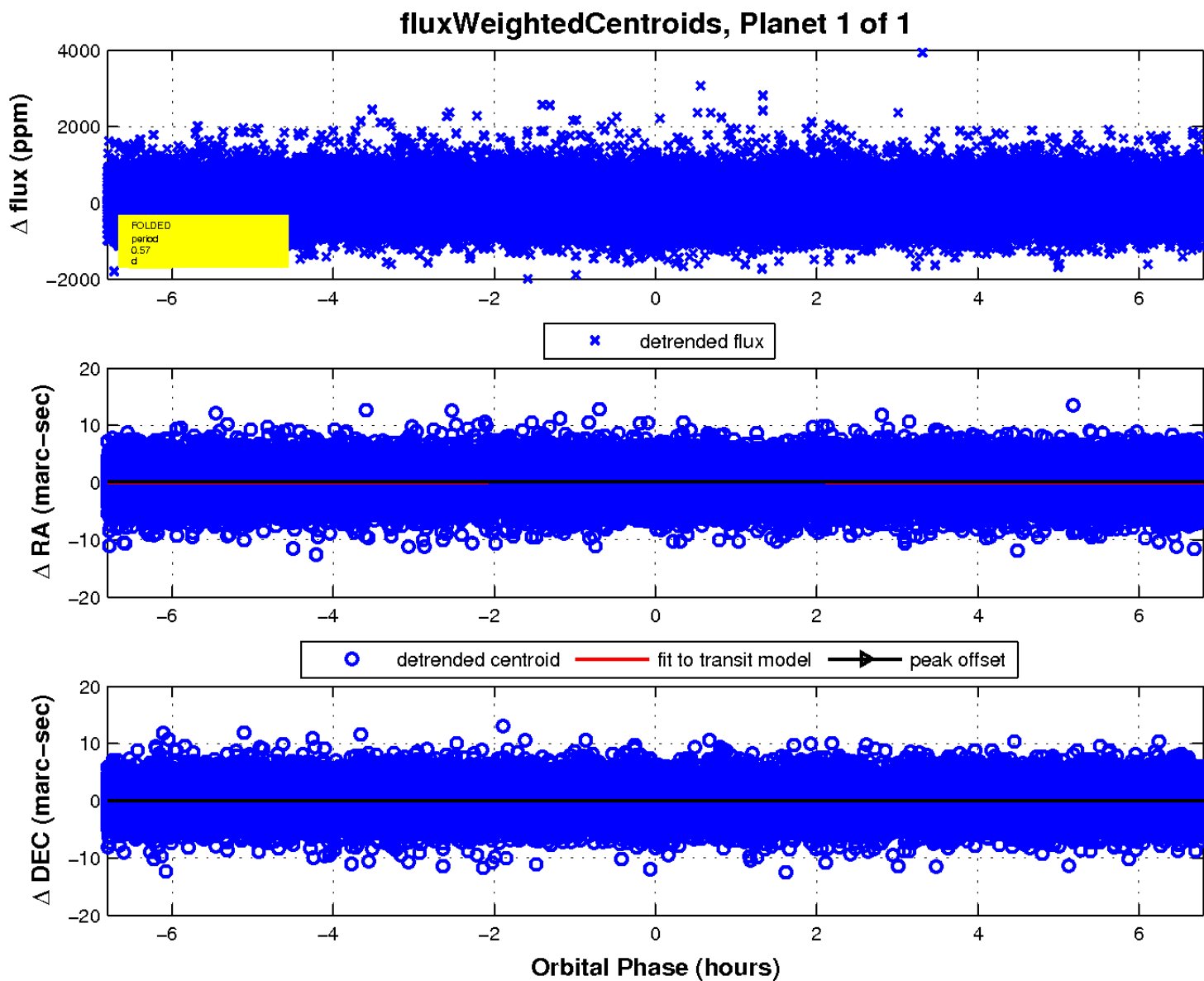
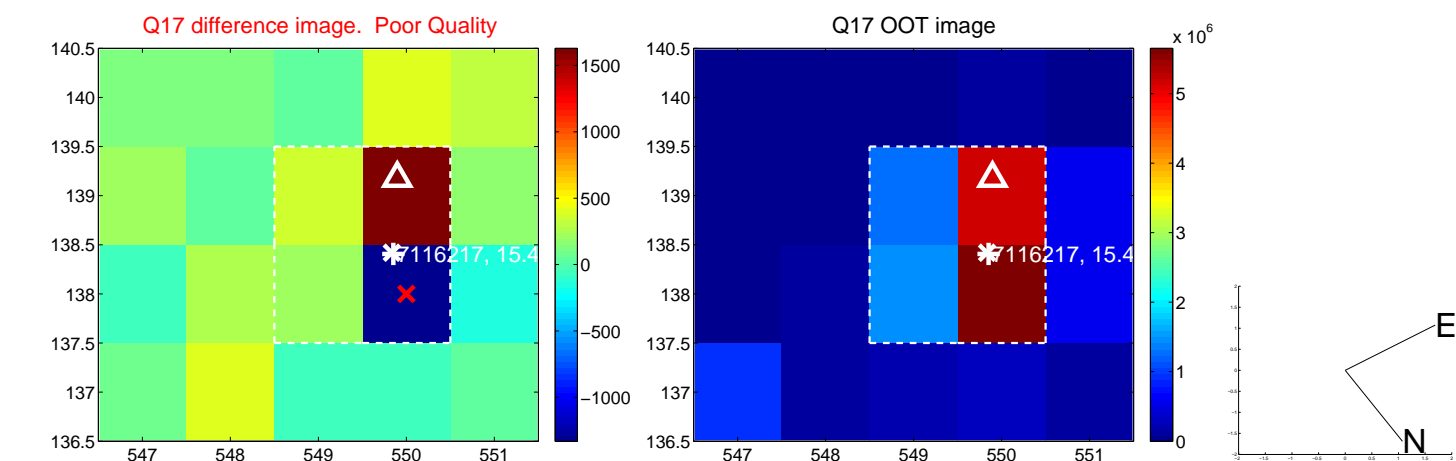
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

